

The Second TEMPO Science Team Meeting, May 21-22 2014
National Institute of Aerospace
100 Exploration Way, Hampton, VA 23666 USA

Day 1

0830 Registration

0845 Introduction, and logistics (SAO & NASA LaRC)

0900 Welcome

NASA LaRC Welcome (D. Young, NASA LaRC)

NASA HQ perspective on Venture Class and TEMPO (A. Pszenny, NASA HQ)

TEMPO status and schedule

0915 Overview of TEMPO status (K. Chance, SAO)

0930 The TEMPO Instrument Project (W. Pennington, NASA LaRC)

0945 The TEMPO Mission/Flight program (A. Little, NASA LaRC)

1000 TEMPO instrument status (Ball Aerospace)

1030 Break

1100 TEMPO Ground Systems - Data delivery/data system/data processing (R. Suleiman, SAO)

1115 Image Navigation and Registration (J. Carr, Carr Astronautics)

1130 Overview and status of GEMS (J. Kim, Yonsei U.)

1145 Overview and status of Sentinel 4 (J. Kaminski, York U., Canada)

1200-1400 Lunch

1400 Canadian activities with regard to TEMPO (C. McLinden, Environment Canada)

1415 Mexican activities with regard to TEMPO (M. Grutter de la Mora, UNAM)

1430 Relevant activities at Rutherford Appleton Laboratory (G. Miles, B. Kerridge, RAL)

1445 OMI operational aerosol physics (O. Torres, NASA GSFC)

1500 OMI operational cloud physics implementations (J. Joiner, GSFC)

1515 Discussion of next steps on cloud and aerosol algorithms for TEMPO (K. Chance, et al.)

1530 Break

1600 TEMPO science studies during and after commissioning* (K. Chance et al.)

Fluorescence (J. Joiner)

Lightning NO_x

Soil NO_x

NO/NO₂ at high dawn and dusk time resolution

Forest fires at high time resolution

Subsampling and spatial resolution

Your study here

1800 Adjourn

1900 Buffet dinner at Smoke BBQ, 10900 Warwick Blvd., Newport News, VA 23601; 757-595-4320

Day 2

0900 Overview and status of TROPOMI/Sentinel 5P (P. Veefkind, KNMI, remotely)

Validation, EPO, student collaboration

0915 Minimum TEMPO cal/val requirements from PLRA (D. Flittner, NASA)

0930 What additional measurements will help TEMPO but are beyond its baseline funding (R. Cohen, UC Berkeley)

0945 How can we get there, part 1: Vision for a federated network of TEMPO validation sites (J. Szykman, EPA, B. Pierce, NOAA, M. Newchurch, UAH, J. Al-Saadi, NASA to coordinate)

1015 How can we get there, part 2: Developments in small sensors, D-AQ experiences, and relevance to TEMPO (R. Long, EPA and/or J. Crawford, NASA)

1045 Break

1115 TEMPO Student Collaboration and its potential role in implementing this vision (M. Pippin, NASA)

1130 TEMPO Strategic Communication (formerly EPO) and its potential role in implementing this vision (M. Dussault, SAO, C. Schrein, SI, L. Chambers, NASA)

1200 Additional discussion, summary, and recommendations (K. Chance, SAO)

1215-1400 Lunch

Science and algorithm presentations

1400 Update on the status of (V)LIDORT radiative transfer models (R. Spurr, RT Solutions, Inc.)

1415 Algorithms and chemical data assimilation activities at Environment Canada (C. McLinden, Environment Canada)

1430 Advances in NO₂ fitting and strat-trop separation (N. Krotkov, GSFC)

1445 Advancing measurements of tropospheric NO₂ from space: New techniques and application to OMPS (K. Yang, U. Maryland)

1500 Understanding the relation of NO₂ column retrievals with ground-level monitors (R. Martin, Dalhousie U.)

1515 Oversampling OMI H₂CO, with implications for TEMPO plume measurements (L. Zhu, D. Jacob, Harvard)

1530 Break

1600 Vegetation spectra in the visible: Representation by EOFs (P. Zoogman, SAO)

1615 Developing a spectral database of various land cover types to characterize land surface albedo for TEMPO (W. Wulamu, St. Louis U.)

1630 TEMPO/GOES-R synergy update and GEO-TASO aerosol retrieval for TEMPO (J. Wang, U. Nebraska)

1645 Next Science Team meeting; any other business

1700 Adjourn

End

Notes

* TEMPO science studies during and after commissioning is meant to be an open discussion of chemistry experiments to be done with TEMPO in addition to the usual hourly sequence of observations. It may also include discussion of how to adjust the observing schedule after commissioning to include time for such studies. Please come with suggestions.

There will be a room available for breakout sessions, *e.g.* on data processing and algorithms.

Assume PC PowerPoint or pdf; bring on a USB drive.

As this is a progress meeting and not a formal symposium, please do not feel the need to overly polish or rehearse presentations, except to keep them to time.